

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK

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MICHAEL RUPOLO and CASSANDRA RUPOLO,

Plaintiffs,

– against–

**MEMORANDUM AND ORDER**

05-CV-2978 (SLT) (RER)

OSHKOSH TRUCK CORPORATION,

Defendant.

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**TOWNES, United States District Judge:**

Michael Rupolo (“Mr. Rupolo”) and his wife, Cassandra, (collectively, “Plaintiffs”) bring this action to recover for injuries Mr. Rupolo sustained when he fell from a cement truck manufactured by defendant Oshkosh Truck Corporation (“Defendant” or “Oshkosh”). In June 2011, this Court presided over the trial of the liability phase of the case, after which the jury found Defendant liable under both product liability and negligence theories. Defendant now moves pursuant to Rule 50(b) of the Federal Rules of Civil Procedure for a judgment as a matter of law. For the reasons set forth below, that motion is denied.

***BACKGROUND***

On June 1, 2002, Mr. Rupolo was employed by Jet Redi Mix Concrete, operating Truck number 767 (“Truck 767”), an Oshkosh Series S cement mixer (the “Mixer”). While ascending a four-rung ladder leading to an elevated platform on the front of Truck 767, Mr. Rupolo slipped and fell. In May 2005, Plaintiffs commenced a torts action against Oshkosh in the Supreme Court of the State of New York, Suffolk County, alleging, *inter alia*, that the Mixer was defectively designed and that Oshkosh was negligent in its design of the ladder. Oshkosh promptly removed the action to this Court, alleging diversity jurisdiction.

On February 4, 2009, Defendant moved for summary judgment, primarily arguing that Plaintiffs lacked evidence to prove that the design defects relating to the Mixer's ladder were a proximate cause of Mr. Rupolo's accident. As part of that motion, Defendant argued that Plaintiffs' expert, Dr. Irving U. Ojalvo, should not be permitted to testify, asserting both that he was unqualified and that his report rested on unfounded conclusions and untested opinions. By order dated September 2, 2009, this Court referred Defendant's motion for summary judgment to Magistrate Judge Ramon E. Reyes for a report and recommendation.

***The Report and Recommendation and Objections Thereto***

On October 27, 2009, Judge Reyes issued his report and recommendation (the "R&R"), in which he recommended denying Defendant's motion for summary judgment. Judge Reyes found that Plaintiffs' expert, Dr. Ojalvo, was qualified, rejecting Defendant's arguments that Dr. Ojalvo lacked expertise pertinent to the cement mixer design and related issues. *Rupolo v. Oshkosh Truck Corp.*, No. 05-CV-2978 (SLT) (RER), 2009 WL 6547339, at \*6. In addition, the magistrate judge found the methodology and reasoning used by Dr. Ojalvo to be both reliable and relevant. *Id.* Noting that Dr. Ojalvo conducted two inspections of Truck 767, consulted two sets of safety regulations, reconstructed the incident with a surrogate climber, took measurements and conducted various calculations, Judge Reyes concluded that Dr. Ojalvo's report was based on a reliable methodology and should be admissible at trial. *Id.* at \*6-\*7.

Judge Reyes also found that Plaintiffs had demonstrated that a genuine issue of fact existed over whether the Mixer was unreasonably dangerous under the risk-utility test. *Id.* at \*8-\*9. Judge Reyes rejected Defendant's claim that the ANSI Standard §A14.3-1992 ("ANSI 14.3") and OSHA safety regulation § 1910 ("OSHA 1910"), to which Dr. Ojalvo referred in his

expert report, were inapplicable, noting that Defendant itself had previously relied on at least one of these standards in deciding that the risk posed by the middle rung of the superstructure's railing was acceptable. *Id.* at \*8. In addition, the magistrate judge found that post-manufacturing changes made by Defendant after Mr. Rupolo's accident could be used to prove that alternative designs were feasible. *Id.* at \*9.

In addition, Judge Reyes found that Plaintiffs had made a sufficient showing of causation. *Id.* at \*10. The magistrate judge noted that Plaintiffs did not have to show that the ladder was "the sole or even dominant cause" of Mr. Rupolo's injuries. *Id.* Rather, the ladder could be the proximate cause of the accident if it was a substantial factor in bringing about Mr. Rupolo's injuries. *Id.*

Ten business days after Judge Reyes filed the R&R, Defendant filed objections to the R&R. Defendant challenged Judge Reyes' finding that Dr. Ojalvo was qualified to testify, asserting that Plaintiffs' expert witness was a "jack of all trades." Defendant's Rule 72 Objections to Magistrate Judge Reyes' Report and Recommendation dated Oct. 27, 2009 ("Defendant's Objections") at 11-14. Specifically, Defendant claimed that Dr. Ojalvo's lack of specific knowledge and experience in the field of trucks or ladders made him a "quintessential expert for hire." *Id.* at 14. Defendant also claimed that Dr. Ojalvo's opinions on causation failed to meet the standard of reliability set forth in *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. 579 (1993), and *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999), noting that Dr. Ojalvo had not disclosed any drawings, models, calculations or tests to prove that an alternative design would have prevented the accident. *Id.* at 2-5.

Defendant also objected to Judge Reyes' conclusion that genuine issues of material fact existed both with respect to whether the subject ladder was unreasonably dangerous and with respect to whether the design defect was a proximate cause of the accident. With respect to Judge Reyes' dangerousness analysis, Defendant argued, *inter alia*, that the ANSI and OSHA standards on which the magistrate judge relied were inapplicable to a vehicle-mounted ladder. *Id.* at 6-8. Defendant also argued that there was no evidence of safer alternative designs, noting that Dr. Ojalvo "did no testing whatsoever concerning any of the 'alternative designs' that he claims would have prevented the subject accident." *Id.* at 10.

With respect to causation, Defendant objected to Judge Reyes' finding that Plaintiffs had adduced evidence which, if credited, would establish that the defective design of the Mixer's ladder caused Mr. Rupolo's injuries. Defendant claimed that Judge Reyes found only that it was "possible" that the ladder's design caused the injury, and that a "mere possibility" was insufficient to prove that the alleged defects did in fact cause the accident. *Id.* at 2. Defendant asserted that "[n]othing, whether in plaintiff's testimony or in anything else cited in opposition to the underlying motion, rules out the slippery nature of his own boots as the sole proximate cause of his accident." *Id.* at 4 (citing *Caruolo v. John Crane, Inc.*, 226 F.3d 46 (2d Cir. 2000)).

In a Memorandum and Order dated May 28, 2010, and filed June 1, 2010, this Court adopted Judge Reyes' recommendations, with the exception of a recommendation relating to Plaintiffs' motion to file a late jury demand which is not relevant here. *See Rupolo v. Oshkosh Truck Corp.*, 749 F. Supp. 2d 31 (E.D.N.Y. 2010). The Court noted, *inter alia*, that Defendant's argument that Dr. Ojalvo was unqualified because he never designed a truck or a ladder for a truck and never worked for a truck manufacturer was unpersuasive. Quoting *Lappe v. American*

*Honda Motor Co., Inc.*, 857 F. Supp. 222, 226-27 (N.D.N.Y. 1994), this Court held that Dr. Ojalvo's broad educational background enabled him "through reading, calculations, and reasoning from known scientific principles [to] make himself very much an expert in the particular product even though he has not had actual knowledge in its manufacture." *Rupolo*, 749 F. Supp. 2d at 40. The Court also rejected Defendant's contentions that Dr. Ojalvo's causation theory was based on untested opinions and was, therefore, unreliable and irrelevant under the standard set forth in *Daubert* and *Kumho Tire*. The Court noted, *inter alia*, that Dr. Ojalvo conducted two inspections of the Oshkosh cement truck and consulted safety regulations promulgated by ANSI and OSHA before concluding that the ladder's design "was clearly inadequate to permit Mr. Rupolo to maintain the bulk of his weight on the ball of his left foot." *Id.* (internal quotations and citation omitted).

The Court held that Plaintiffs had established that there was a genuine issue of material fact regarding whether the Mixer was unreasonably dangerous. The Court noted that the applicability of the ANSI and OSHA standards was a factual question and that compliance or lack of compliance with such regulations was not dispositive of the issue of a design defect, although such lack of compliance might provide some evidence of such a defect. *Id.* at 43 (citing *Del Cid v. Beloit Corp.*, 901 F. Supp. 539, 548 n.7 (E.D.N.Y. 1995); *Montalvo v. Rheem Textile Sys., Inc.*, No. 86 Civ. 9501, 1991 WL 52777, at \*3 (S.D.N.Y. Apr. 4, 1991)).

The Court also rejected Defendant's contention that Judge Reyes erred in relying on the alternative designs suggested by Dr. Ojalvo as evidence of the ladder's dangerousness, notwithstanding Dr. Ojalvo's alleged failure to prove that these designs were safer than the design of the subject ladder. This Court principally relied on deposition testimony in which Dr.

Ojalvo stated that “Mr. Rupolo never could have slipped vertically, as he did in this case, on the alternative ladder designs contained on the Terex-Advance cement truck, the Phoenix cement truck or the 2002 support bracket modification of the Oshkosh ladder, because they each provided flat level surfaces to support the climber's weight.” *Id.* at 44. The Court noted:

[I]t is immediately apparent from the photographs submitted by Plaintiffs that alternative designs considered by Dr. Ojalvo allow a climber to place his foot flat on the top rung of the ladder. From these photographs, a reasonable juror could infer that the alternative designs are safer than the subject ladder. This Court, therefore, concurs with Judge Reyes’ findings that Plaintiffs have adduced sufficient evidence with respect to whether alternative designs were not only feasible, but also safer.

*Id.*

### ***The Trial***

In June 2011, following unsuccessful attempts to mediate and settle the parties’ dispute, this Court tried the liability phase of the case. Over the course four days, Plaintiffs produced four live witnesses: Michael J. Pluchinsky, an engineer employed by Oshkosh; Mr. Rupolo; Stephen Schenck, a mechanic who saw Mr. Rupolo shortly after the accident; and Dr. Ojalvo. In addition, Plaintiffs’ counsel introduced the deposition testimony of Thatcher Peterson, a product safety manager at Oshkosh. Because Defendant’s Rule 50(b) motion challenges the sufficiency of the evidence adduced by Plaintiffs, this Court will describe the Plaintiffs’ case in some detail.

### ***Plaintiffs’ Case***

#### ***A. Thatcher Peterson’s Deposition Testimony***

Plaintiffs’ counsel began the trial by reading from the transcript of Thatcher Peterson’s July 31, 2006, deposition. In his deposition testimony, Peterson described the Mixer as “front discharge concrete truck,” meaning that “the concrete drum or barrel is positioned facing

forward over the cab.” Peterson Dep. at 11. There is a platform or catwalk located in front of the drum, on which operators stand in order to wash out the drum. *Id.* at 11-12. A four-rung vertical ladder located on the driver’s side of the Mixer, just forward of the driver’s door, enables operators to access the platform.

Attached to the top of the ladder is a “vertical support bracket” – an L-shaped piece of metal about three-sixteenths of an inch thick. The top portion of the longer, vertical leg of the bracket, which Peterson referred to as the “top tang or blade . . . of the vertical support bracket,” “rests in a slot that is maybe three inches in depth” which is located on the bottom of the catwalk. *Id.* at 22. The end of the shorter, horizontal leg of the bracket is “bolted to the outside vertical support of the ladder” – *i.e.*, the vertical support furthest from the driver’s cab. *Id.* Since the other vertical support is attached by a pivot to the bottom of the catwalk, this design enables the ladder to slide slightly from side to side as the Mixer moves. According to Peterson, this design is necessary because the Mixer is built to “go on and off paved roads to the construction site.” *Id.* As Peterson explained:

[W]hen [the Mixer] goes off road to construction sites carrying a heavy load, . . . the whole frame turns and twists and it is necessary to provide a relief mechanism for the ladder so that it can turn and twist against the superstructure without destroying either itself or the superstructure, and so the ladder is held in place in this groove to prevent the damage to the ladder or the superstructure.

*Id.* at 22-23.

Although the very end of its shorter, horizontal leg turns perpendicular to the rest of the bracket so as to attach to the ladder, the vertical support bracket is largely flat and parallel to the ladder. Since the vertical support bracket is attached to the back side of the ladder, the horizontal leg – which is 6½ inches wide and 5 inches high – limits how much of the climber’s

foot can rest on the outside 6½ inches of the 16-inch-wide top rung of the ladder. According to a “product audit sheet” prepared by Oshkosh’s product safety team in January 1995, the bracket allows only 4.25 inches of “foot contact” on that portion of the fourth rung. *Id.* at 65.

At his deposition, Peterson was questioned extensively about the product audit sheet. Peterson testified that that document was prepared by a five-man “product safety team” which had thoroughly examined the Mixer, “seeking to find any configuration that [made them] uncomfortable. *Id.* at 17. However, none of men was a member of Oshkosh’s engineering department. *Id.*

The product audit sheet identified the placement of the vertical support bracket as a potential hazard, noting, “Ladder support bracket hits left toe, allowing 4.25 in. of foot contact on ladder rung.” *Id.* at 64-65. In a column of the product audit sheet entitled “Action,” the engineering department indicated that it could eliminate the hazard by “extend[ing] support bracket to provide plenty of room for foot.” *Id.* at 65. However, applying a standard of whether they were “comfortable with ourselves, our spouse, our best friend or our eighteen-year-old son using the design as it is configured,” the product safety team decided that the risk posed by the vertical support bracket was “acceptable.” *Id.* at 65-66. Accordingly, the engineering department was not required to change the design of the vertical support bracket immediately. *Id.* at 66.

Nonetheless, in 2002, the engineering department changed the design of the vertical support bracket to provide “an inch or two inches more . . . room for the left foot to be on the left-hand side of the top rung.” *Id.* at 56. Peterson did not testify regarding why engineering waited until 2002 to make the change, but made it clear that the delay had nothing to do with the

cost. When asked how much it cost “to manufacture the post-2002 modified vertical support bracket,” Peterson stated, “not much.” *Id.* at 71. When he was then asked if the redesigned bracket was more expensive than its predecessor, Peterson testified that “the cost would be comparable.” *Id.*

Although Peterson was himself a lawyer who had never taken any engineering courses, *id.* at 48-49, Plaintiffs’ counsel asked him if he knew “whether . . . it was feasible to construct a vertical ladder to the superstructure which did not contain the vertical support bracket that the Oshkosh ladder had.” *Id.* at 67. Peterson replied, “I know that it was not feasible to do that.” *Id.* at 67-68. Asked to explain the basis for his answer, Peterson then stated:

Based on the necessity of having the top of the ladder constrained so that it would not independently rotate from the side of the truck. It’s hard to explain with words. The ladder superstructure . . . has to flex or either the ladder or the superstructure will both be destroyed in use. . . . [T]he ladder cantilever is out from the truck or the superstructure, and our experience was that you had to restrain the top part of the ladder against the superstructure so it would allow side to side movement, but not front to back movement.

*Id.* at 68. Peterson claimed that “back in 1995 the vertical support bracket was the only way to achieve that objective.” *Id.*

Peterson was then shown a photograph of a 1996 Terex Advance cement mixer (hereinafter, the “Terex Advance”) – another front discharge cement truck. That truck also had a ladder and catwalk for accessing the front of the drum, but the vertical support bracket was on the outside of the vertical support of the ladder, leaving the rungs of the ladder unobstructed by the bracket. *Id.* at 70. When asked if there was some reason Oshkosh could not have designed a similar ladder, Peterson stated:

If the question is can you design a ladder different than it is designed or superstructure differently than designed, then the answer is always yes. If the question is can you have this configuration work with the existing superstructure design of the truck, the answer is I don't know and I would not know unless I tied it onto the truck and tested it to see what would happen.

*Id.* at 69-70.

***B. Michael Pluchinsky's Testimony***

Plaintiffs' first live witness at trial, Michael J. Pluchinsky, was an Oshkosh engineer, but had not worked on the Mixer at issue. Pluchinsky graduated with a B.S. in mechanical engineering from the Milwaukee School of Engineering in 1995, and began working as a development engineer at Oshkosh in June of that year (T. 6-8, 107).<sup>1</sup> Pluchinsky ultimately became the "chief engineer in the concrete placement engineering group" – the group that developed and designed the Mixer – but not until 2003 (T. 9). Pluchinsky never did any work with respect to the Mixer, although he did work on subsequent models of the Oshkosh cement mixer and was aware of the history of the mixer (T. 8).

Pluchinsky testified that the mixer had been redesigned in or about 1995 in a way that changed the design of the ladder and catwalk (T. 24). The pre-1995 version of the Mixer (the "Pre-1995 Version") did not have a vertical support bracket (T. 42), and there was no limitation on the toe clearance on the upper rungs (T. 44). Pluchinsky conceded that those who redesigned the mixer "had the ability to draw on what had been in their previous vehicles" (T. 49). In addition, Pluchinsky testified that one of the things Oshkosh took into consideration in redesigning the mixer was the design of ladders of a similar nature on other vehicles (T. 80).

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<sup>1</sup> Numbers in parentheses, preceded by "T.," denote pages in the trial transcript.

When shown a photograph of the Terex Advance, Pluchinsky agreed that there was no obstruction limiting the toe clearance on the rungs of the ladder leading to the catwalk of that vehicle (T. 49). Pluchinsky also agreed that the Terex Advance had the “same function” as the Mixer and the Pre-1995 Version (T. 46).

Pluchinsky himself was not involved in the development and testing of the ladder at issue (T. 93), which he testified was a “fixed,” straight ladder (T. 40). Pluchinsky believed that there were “industry standards available to Oshkosh relative to straight ladders” at the time they redesigned the mixer (T. 91), and was aware that OSHA had developed standards for straight ladders, but maintained that OSHA did not have standards that specifically applied to ladders on concrete mixers (T. 92). Pluchinsky conceded, however, that regardless of whether or not OSHA had specific standards that applied, it was the custom and practice of Oshkosh to rely on those standards as a reference (T. 93). Pluchinsky testified that ANSI 14.3, which applied to fixed ladders, did not apply to ladders on trucks (T. 161), but did not know whether the Oshkosh engineers consulted ANSI or OSHA standards in designing the ladder at issue (T. 181).

Pluchinsky testified that Oshkosh had sold 4,500 to 4,600 Mixers between 1999 and 2002 (T. 151), but that he had never heard of anyone being injured on the ladder (T. 164) and that Oshkosh had never received any complaints about an operator falling from a ladder on the Mixer (T. 163). However, the engineering department did not maintain records of accident reports relating to the Mixer (T. 31), and Pluchinsky was unaware of any procedure or program at Oshkosh to maintain information relating to whether accidents occurred involving the ladder (T. 32). Accordingly, he could not testify whether there had ever been other complaints with regard to falls from the ladder (T. 38).

Pluchinsky was unaware that any operators were stepping on the top of the bracket while climbing the ladder on the Mixer (T. 147). The Operator Manual for the Mixer expressly advised drivers not to use “brackets” in entering and exiting the cab, but contained no further instructions relating to brackets (T. 179-80). Rather, the manual instructed operators to “maintain three points of contact with [the] vehicle” while climbing the ladder (T. 72-73), and to “use steps and hand holds” while climbing (T. 187).

Pluchinsky testified that the vertical support bracket was modified in 2002 to add two additional inches of toe clearance on the outside portion of the fourth rung (T. 115). According to Pluchinsky, the modification was made solely to make it “more comfortable for [an] operator standing on the fourth step,” and not because of any safety considerations (T. 115-16, 158). That modification, which required “no more than adding . . . a little bit of metal to . . . the back of the bracket” (T. 115), cost as little as \$10 for each Mixer (T. 118). Nonetheless, Pluchinsky testified that, in 1995, it was not feasible to change the bracket to permit more than 4.25 inches of toe space on the outside of the fourth rung (T. 114).

### ***C. Michael Rupolo’s Testimony***

The second live witness at trial was Plaintiff Michael Rupolo (“Mr. Rupolo”), who testified regarding the manner in which the June 1, 2002, accident occurred. Mr. Rupolo, who was 29 years old at the time of the accident, was the eldest son of a cement truck driver and testified that he had been around cement trucks his “entire life” (T. 192-93). He obtained a commercial driver’s license at the age of 19 or 20 (T. 194), and drove cement mixers and other trucks for various employers for the next two or three years (T. 195-96). Unable to work full-time as a cement truck driver, Mr. Rupolo operated his own home improvement business for a

few years during his mid-twenties (T. 200). However, just prior to September 11, 2001, Mr. Rupolo closed that business and returned to driving cement mixers for various companies (T. 201).

Starting in late February 2002, Mr. Rupolo was employed on an almost daily basis by Jet Redi Mix, a company located in Ronkonkoma, New York (T. 201-02). After a couple of weeks of operating a “rear loader,” Mr. Rupolo was assigned to drive Truck 767 (T. 202). Although Mr. Rupolo had previously operated other types of “front loaders,” Truck 767 was the first Oshkosh cement mixer that he had ever driven in the course of his employment (T. 208). Thereafter, Mr. Rupolo drove Truck 767 every day on which he was working and the truck was operational (T. 202).

Because of the configuration of the “grab bars” at the top of the ladder of Truck 767, Mr. Rupolo always began climbing the ladder by placing his right foot on the bottom rung (T. 211). He alternated feet as he climbed and, accordingly, had to place his left foot on the fourth rung (T. 211-14). However, if he attempted to place his left foot on the left side of the fourth rung, the toes of his left foot hit the vertical support bracket (T. 214).

Mr. Rupolo wore size 10 construction boots, which had a firm, textured rubber sole and were “bigger in the front,” so as to provide protection for the toes (T. 217-19, 256). Since Mr. Rupolo’s foot did not extend to the very front of the boot (T. 278), he was unable to place more than his toes on the fourth rung of the ladder (T. 214, 216, 258). According to Mr. Rupolo, “you don’t get the right balance when you’re on the tips of your toes like that” (T. 214-15). Mr. Rupolo did not feel safe climbing the ladder in this way, testifying that his foot had slipped on the fourth rung when he did so (T. 216-17).

After that slip, Mr. Rupolo began simultaneously placing the front of his left boot on the top of the vertical support bracket and the back of his boot on the front edge of the fourth rung (T. 215). Mr. Rupolo would then pivot his left foot on the bracket while moving his right foot from the third rung to the top of the catwalk (T. 223). No one told him to climb the ladder in this manner (T. 259), and Mr. Rupolo never read either the operator's manual for the Mixer or the warnings, if any, that may have been posted on the vehicle (T. 252). Nonetheless, Mr. Rupolo himself considered this method to be "the lesser of two evils" (T. 222, 243, 254, 261).

Mr. Rupolo used this technique without incident on "a few hundred" occasions prior to the accident (T. 251). However, on June 1, 2002, his left foot slipped off the bracket while he was in the process of moving his right foot to the top of the catwalk (T. 230). He fell from the ladder. Although no one witnessed the accident (T. 250), one of Mr. Rupolo's co-workers – a mechanic named Stephen Schenck – testified that he observed blood on the ladder shortly after Mr. Rupolo limped into the office following the accident (T. 291, 296).

Mr. Rupolo continued to drive Truck 767 after recovering from the accident (T. 242). He continued to climb the ladder in the same manner as before until, at some unspecified time, his left foot again slipped from the fourth rung (T. 242). Although he did not fall, Mr. Rupolo told his boss that he did not want to drive Truck 767 again (T. 242, 270). Thereafter, his boss assigned him to a cement mixer with the modified, "cupped" or "extended bracket" (T. 242).

#### ***D. Dr. Ojalvo's Testimony***

The final witness to testify on behalf of Plaintiffs was Dr. Ojalvo, a Fulbright scholar with a Ph.D. in mechanical engineering (T. 305-07). For "a number of years" after obtaining his doctorate from New York University, Dr. Ojalvo worked in the aerospace industry on Long

Island, first at Republic Aviation and later at Grumman Aerospace (T. 308, 311). As a mechanical engineer at those companies, Dr. Ojalvo did “a lot of work in the space field,” including work on the lunar module and the Hubble telescope (T. 311). However, Dr. Ojalvo never did any work relating to cement mixers (T. 317-18).

In 1983, Dr. Ojalvo became the chairman of mechanical engineering at the University of Bridgeport. (T. 311). There, he not only taught classes and oversaw the department, but also engaged in research for Sikorsky Helicopter relating to the development of the Black Hawk helicopter (T. 312). In 1990, he joined the department of civil engineering at Columbia University, where he worked as an adjunct professor and the associate editor of a technical journal: The American Institute of Aeronautics and Astronautics (“AIAA”) Journal (T. 312). He also published extensively in national and international peer-reviewed journals (T. 313). At least four of Dr. Ojalvo’s articles related to ladders (T. 314), although none of the articles directly related to ladders on cement trucks.

Upon retiring from Columbia in 1995, Dr. Ojalvo went into business as a private consultant (T. 313). That business – which, by the time of trial, employed three other full-time employees and a number of part-time employees – provided expert testimony on a host of issues (T. 474). In addition to working in his consulting business, Dr. Ojalvo was a member of an ANSI committee on ladder safety. At the time of trial, Dr. Ojalvo had been on the committee for over 10 years, during which time he had served in “various positions” (T. 314).

After being qualified as an expert in mechanical engineering and fixed ladder construction and safety (T. 327), Dr. Ojalvo testified regarding his examination of Truck 767. Dr. Ojalvo took various measurement of the ladder (T. 336-37), and ascertained that each of the

first three rungs had a horizontal dimension of 16 inches (T. 342). However, there was not “a 16 inch clear width” on the fourth rung because of the vertical support bracket (T. 342-43). Rather, there was “six and a half inches of non-clear width” where the bracket was located, and nine and one-half clear inches from the bracket to the inside vertical support of the ladder (T. 343). The fourth rung itself was 1.6 inches deep and the distance from the back of the rung to the bracket was another 2.6 inches (T. 348-49).

Although Dr. Ojalvo had never had a case involving a cement mixer, he viewed the ladder on the Mixer as “a fixed industrial ladder,” “applied to a concrete truck” (T. 317-18, 358). Relying on ANSI 14.3 – a standard developed for fixed ladders (T. 382) – Dr. Ojalvo testified that “industry standards” required that a fixed ladder have the same clear width on each rung and have a minimum of seven inches of clear space forward from the center of the rung (T. 376-78). Since the ladder did not meet these requirements, Dr. Ojalvo characterized the design of the ladder as “unreasonably hazardous” and “defective” (T. 378, 463).

Dr. Ojalvo also testified that the design was “terrible” because it “unnecessarily” made “the task of climbing harder” and created “a situation that could lead to a slip” (T. 380). Dr. Ojalvo explained that people climbing ladders normally put their weight somewhere near the arch and behind the ball of the foot (T. 348). However, because of the obstruction caused by the bracket, there was not enough room to climb the left side of the fourth rung in that manner or for climbers to “place their weight effectively[,] comfortably and safely” (T. 388). Moreover, there was not enough room to place both feet on the right side of the fourth rung without “bunching up both legs” and causing one foot to impede the placement of the other foot on the catwalk (T. 396-97).

Opining that there was no safe way to place the left foot on the fourth rung (T. 450), Dr. Ojalvo testified that it was foreseeable that someone might place the front of their foot on top of the bracket in order to surmount the fourth rung (T. 361). Dr. Ojalvo characterized that method of surmounting the fourth rung as a “foreseeable misuse” (T. 539), and opined that the misuse was “perfectly reasonable” (T. 395). Dr. Ojalvo testified, “[I]t’s a way to keep . . . the weight over the arch of your foot and although your foot is not flat, you at least satisfy the requirement that that is taking all of the vertical load” (T. 395-96).

Dr. Ojalvo opined that it was also foreseeable that someone would fall off the ladder (T. 466-67). He observed that the misuse created “a horizontal gravity load backward,” resulting in a tendency “to slide off” the ladder (T. 396). He calculated that when Mr. Rupolo placed his foot on the bracket and the rung simultaneously, his foot was at a 28 degree angle (T. 369). Dr. Ojalvo also measured the coefficient of friction, defined as the ratio of the horizontal force to slide an object as compared to the contact pressure or weight of the object (T. 371). Dr. Ojalvo ascertained that, under dry conditions, the boot could slip, but would not do so “most of the time” (T. 373). However, when the surfaces were wet, the coefficient of friction was lower and the boot “was more likely than not to slip” (T. 373). Since the ladder was likely to become wet during the process of washing the drum, slips were inevitable (T. 447, 448).

Dr. Ojalvo testified that there existed alternative feasible designs which would have been consistent with industry safety standards (T. 392). First, he noted that the fourth rung of the ladder on the Pre-1995 Version did not have a support bracket, leaving that rung unobstructed (T. 384-85). He testified that the Pre-1995 Version’s ladder was “reasonably safe” (T. 468), and that Oshkosh could have retained that ladder assembly and catwalk (T. 419). Second, Oshkosh

could have switched to a design similar to that used on the Terex Advance, another front discharge cement mixer without obstructed rungs (T. 424), which was also reasonably safe (T. 469). Third, Oshkosh could have modified the bracket design to add additional toe room, as was done in 2002 (T. 402).

Because these alternatives existed, Dr. Ojalvo opined that the risk associated with the design of the Mixer's ladder was unacceptable. Dr. Ojalvo explained that mechanical engineers define an acceptable level of risk as "a level of risk that you are asked to accept if there is no other solution" (T. 399). However, if there was another solution, the risk could be avoided altogether and would be unacceptable (T. 399-400).

On cross-examination, Dr. Ojalvo testified that, although he believed that ANSI 14.3 applied to the Mixer (T. 508), this was only his opinion, not ANSI's, and he was unaware of anyone else who shared that opinion (T. 512, 516-17). Similarly, while OSHA had created standards based on the ANSI standards, there was "no indication" that the OSHA standards applied to mobile equipment (T. 514).

Dr. Ojalvo was also cross-examined extensively about feasible alternatives. First, Defendant's counsel showed him a photograph of a Terex Advance which appeared to have a large rear-view mirror affixed to the outside vertical support of the ladder and asked if the mirror "would be an impediment to somebody moving up that ladder" (T. 524). Dr. Ojalvo admitted that he could not tell whether the mirror was blocking the step, and had no opinion as to "the safety of that particular configuration" (T. 524, 526). He further admitted that he never measured the width of the rungs of the ladder on the Terex Advance, stating that he "could look at it and see that it had a clear width" (T. 526).

Dr. Ojalvo also conceded that if one were to attempt to attach the ladder from the Terex Advance to the superstructure of the Mixer, some sort of bracket would be required. Dr. Ojalvo stated:

You have a ladder, you have a superstructure. There is an interface and what you have to do is to match that attachment feature, a bracket . . . , so that it's compatible with the superstructure and compatible with the ladder and there are many ways to do that from a design point of view.

(T. 528). Dr. Ojalvo claimed that he “could design a bracket that would meet that interface,” but admitted that he had not done so (T. 528).

Although there was no evidence that the Mixer was designed to perform a different function than the Pre-1995 Version or the Terex Advance, Defendant's counsel attempted to establish this fact during his cross-examination of Dr. Ojalvo. First, Defendant's counsel asked Dr. Ojalvo to explain why Oshkosh designed the vertical support bracket to have “some give in it” (T. 529). When Dr. Ojalvo responded by stating that he had “seen testimony in the report of an Oshkosh employee that said that they wanted enough relative motion between the superstructure and the truck itself so that joints would not fail or crack due to off road travel,” Defendant's counsel attempted to paraphrase the expert's response by stating, “In other words, Oshkosh designed a truck that is going to be more resilient in off road usage than the alternative design . . . , isn't that correct?” (T. 530). Dr. Ojalvo did not agree with that proposition, stating, “I don't know the details of the rest of that superstructure” (T. 530).

Later in his cross-examination, Defendant's counsel again asked a question that assumed that the Mixer was designed to perform a different function than the Pre-1995 Version and the Terex Advance. Defendant's counsel asked, “[Y]ou can't take either one of those alternatives

and still have the same off road capability that Oshkosh and its customer base desired in this truck, can you?” (T. 531). Dr. Ojalvo responded, “You could if you made other modifications to the attachment of the superstructure to the truck” (T. 531). Defendant’s counsel then proceeded to establish that Dr. Ojalvo had not done any work to enable him to demonstrate how those modifications might be made (T. 531).

***Defendant’s Motion for a Directed Verdict***

After Dr. Ojalvo concluded his testimony, Plaintiffs rested their case. Defendant then moved for a directed verdict, principally arguing that Plaintiffs had not adduced sufficient evidence of a feasible alternative design. Defendant conceded that Plaintiffs adduced evidence regarding the Pre-1995 Version and the Terex Advance, but asserted that neither of those trucks “have the same type of attachment, neither are similar trucks, neither serve the same purposes for consumers” (T. 551). Defendant asserted that Dr. Ojalvo had not “done any of the engineering work required to show that the two alternative designs he put into evidence are workable with this type of truck” (T. 552).

Defendant also argued that Dr. Ojalvo’s testimony established that the ANSI and OSHA standards on which he previously relied were inapplicable. Defendant asserted that, in denying Defendant’s motion for summary judgment, this Court relied on Dr. Ojalvo’s representations that the ladder’s design violated two sets of safety regulations: ANSI 14.3 and OSHA 1910. Defendant alleged that Dr. Ojalvo’s trial testimony contradicted those representations by stating that it was “just [his] opinion” that those standards applied to the ladder at issue (T. 551).

This Court summarily denied Defendant's motion for a directed verdict, stating, "There are questions of fact sufficient to have this case go to the jury to decide it" (T. 552). The defense then rested without presenting any evidence (T. 552).

After summations, the Court charged the jury on both a products liability theory and a negligence theory. The jury found that the Mixer was defectively designed, that Defendant was negligent in its design of the Mixer's ladder, and that both the design defect and the negligence were a proximate cause of Mr. Rupolo's fall. However, the jury also found that Mr. Rupolo was negligent in the manner in which he climbed the ladder.

***Defendant's Rule 50(b) Motion***

Defendant now renews his motion pursuant to Rule 50(b) of the Federal Rules of Civil Procedure, seeking a judgment as a matter of law or, in the alternative, a new trial. After discussing the legal standard applicable to Rule 50(b) motions, Defendant's Memorandum of Law in Support of Motion ("Defendant's Memo") advances two arguments. First, Defendant argues in Point II that the proof adduced by Plaintiffs at trial was insufficient to make out a design defect for two reasons: (1) there was no evidence of a feasible alternative design and (2) there was no competent evidence establishing that the presence of the bracket was a design defect. With respect to the first reason, Defendant acknowledges that Plaintiffs introduced evidence concerning the Pre-1995 Version and the Terex Advance, but asserts that Dr. Ojalvo admitted that these vehicles were incapable of performing the function for which the Mixer was designed and that the ladder designs on these vehicles would not have worked with the Mixer. Defendant's Memo at 6. With respect to the second reason, Defendant argues that Dr. Ojalvo conceded on cross-examination that the ANSI and OSHA standards did not apply to the ladder at

issue, and that Dr. Ojalvo's remaining testimony was based on ergonomics and "human factors" – disciplines in which he had not been qualified as an expert.

Defendant's second point, contained in Point III of Defendant's Memo, argues that this Court should award Defendant judgment on the negligence claim because Plaintiffs' evidence was insufficient to make out foreseeability and proximate cause. First, Defendant argues that Mr. Rupolo's fall was due to an unforeseeable misuse of the ladder. Second, Defendant contends that any alternative design would also contain a bracket and, therefore, could have been misused in the precise same manner. Finally, characterizing the alleged design defect as "insufficient toe clearance," *id.* at 22, Defendant claims that this alleged defect was not a proximate cause of Mr. Rupolo's accident.

Defendant's Memo also contains a Point IV, in which Defendant requests a new trial if this Court decides not to grant the Rule 50(b) motion. Defendant's Memo does not suggest any specific reasons for granting a new trial, but merely alludes to the arguments stated in Points II and III of Defendant's Memo, stating:

As discussed above, the record clearly mandates entry of judgment in Oshkosh's favor. However, should the Court decline to grant such a remedy, as an alternative, Oshkosh seeks a new trial on the issue of liability.

Defendant's Memo at 24.

In responding to Defendant's motion, Plaintiffs rely on both procedural and substantive arguments. Plaintiffs primarily argue that Defendant is procedurally precluded from raising the issues delineated in Defendant's Memo because Defendant's counsel failed to articulate them during his oral motion pursuant to Rule 50(a). Plaintiffs also notes that this Court, in denying the Rule 50(a) motion, ruled that there were "questions of fact sufficient to have this case go to

the jury,” and argues that this ruling constitutes “law of the case.” Plaintiffs’ Memorandum of Law in Opposition to Motion (“Plaintiffs’ Opposition”) at 9-10.

In addition to advancing these procedural arguments, Plaintiffs controvert the substance of Defendant’s sufficiency claims. First, Plaintiffs state that it is “self-evident” that the Pre-1995 Version and the Terex Advance, like the Mixer, were designed to work at construction sites, which are “necessarily ‘off-road’ locations.” Plaintiffs’ Opposition at 17. Plaintiffs note that the Terex Advance was part of Jet Redi-Mix’s fleet of trucks, and that Defendant has offered no evidence to suggest that it could not be used off-road. Second, Plaintiffs argue that Dr. Ojalvo did not rely on the ANSI 14.3 to establish that the ladder was defective or that it was foreseeable that an operator might use the ladder in the same manner as Mr. Rupolo. Plaintiffs note that Defendant’s own product audit worksheet dated January 1995 identified the fact that the Bracket allowed for only 4.25 inches of foot contact on the ladder rung as a “risk.” *Id.* at 22.

## ***DISCUSSION***

### ***I. The Procedural Arguments***

Rule 50(a)(1) of the Federal Rules of Civil Procedure provides, in pertinent part:

If a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue, the court may . . . grant a motion for judgment as a matter of law against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue.

“A motion for judgment as a matter of law may be made at any time before the case is submitted to the jury,” but must specify the judgment sought and the law and facts that entitle the movant to the judgment.” Rule 50(a)(2). “If the court does not grant a motion for judgment as a matter

of law made under Rule 50(a), . . . the movant may file a renewed motion for judgment as a matter of law and may include an alternative or joint request for a new trial under Rule 59.” Fed. R. Civ. P. 50(b).

“Rule 50(a) does not define how specific the motion must be.” *Galdieri-Ambrosini v. Nat’l Realty & Dev. Corp.*, 136 F.3d 276, 286 (2d Cir. 1998) (internal quotations and citation omitted). However, “[t]he very purpose of Rule 50(b)’s requiring a prior motion for a directed verdict is to give the other party an opportunity to cure the defects in proof that might otherwise preclude him [or her] from taking the case to the jury.” *Broadnax v. City of New Haven*, 415 F.3d 265, 268 (2d Cir. 2005) (quoting *Cruz v. Local Union No. 3 of the Int’l Bhd. of Elec. Workers*, 34 F.3d 1148, 1155 (2d Cir. 1994)). Accordingly, the Rule 50(a) motion “must at least identify the specific element that the defendant contends is insufficiently supported.” *Galdieri-Ambrosini*, 136 F.3d at 286.

Moreover, because a motion pursuant to Rule 50(b) “is in reality a renewal of a motion” pursuant to Rule 50(a), a Rule 50(b) motion “cannot assert new grounds for relief.” *Lambert v. Genesee Hosp.*, 10 F.3d 46, 53-54 (2d Cir. 1993) (citing *Meriwether v. Coughlin*, 879 F.2d 1037, 1044 (2d Cir. 1989)). Thus, “[a] motion under Rule 50(b) is not allowed unless the movant sought relief on similar grounds under Rule 50(a) before the case was submitted to the jury.” *Exxon Shipping Co. v. Baker*, 554 U.S. 471, 485 n.5 (2008); *see also Samuels v. Air Transport Local 504*, 992 F.2d 12, 14 (2d Cir. 1993) (grounds for relief under Rule 50(b) limited “to those specifically raised” in the prior Rule 50(a) motion). A court “may reach a forfeited issue only if ignoring the issue would ‘result in manifest injustice’ or if the issue involved is ‘purely legal error.’” *Barkley v. United Homes, LLC*, Nos. 04-cv-875 (KAM)(RLM), 2012 WL 2357295, at

\*4 (E.D.N.Y. June 20, 2012) (quoting *AIG Global Secs. Lending Corp. v. Banc of Am. Secs., LLC*, 386 Fed. App' x 5, 6 (2d Cir. 2010)).

As Plaintiffs correctly note, Defendant's Rule 50(a) motion did not raise the issues of foreseeability and causation which Defendant seeks to assert upon the instant motion. At the close of Plaintiffs' case, Defendant principally argued that Plaintiffs had not adduced sufficient evidence of a feasible alternative design (T. 551-52). In addition, Defendant argued that Dr. Ojalvo's testimony established that the ANSI and OSHA standards on which Plaintiffs' expert had previously relied were inapplicable (T. 551). However, Defendant's oral Rule 50(a) motion did not challenge the sufficiency of the evidence relating to causation or foreseeability.

Defendant's Reply Memorandum of Law tacitly concedes that Defendant's counsel did not specifically mention foreseeability and causation at the time he made the 50(a) motion. Citing to *Galdieri-Ambrosini*, Defendant argues that, "[i]n the interests of justice," a Rule 50(a) application should "not be constrained only to what is said on the record at the time the application is made to the court." Reply Memo at 3. Defendant asserts that at various points throughout the trial, it "noticed plaintiffs of deficiencies in their presentation of evidence on the issues of foreseeability and causation," *id.* at 4, and implies that these repeated references during trial afforded Plaintiffs sufficient opportunity to cure the defects in their proof. In addition, relying on *Doctor's Assocs., Inc. v. Weible*, 92 F.3d 108 (2d Cir. 1996), Defendant argues that Plaintiffs could not present evidence to sustain a verdict and that it "simply would be unfair" to permit Plaintiffs' verdict to stand. Reply Memo at 2-3.

Defendant's reliance on *Galdieri-Ambrosini* is misplaced. In that case, the Second Circuit identified the "ultimate question" as whether the Rule 50(a) motion, "either of itself or in

the context of the *ensuing* colloquy, was sufficiently specific to alert the opposing party to the supposed deficiencies in her proof.” 136 F.3d at 287 (emphasis added). After noting that “the purpose of requiring the moving party to articulate the ground [for the Rule 50(a) motion] . . . ‘is to give the other party an opportunity to cure the defects in proof that might otherwise preclude him from taking the case to the jury,’” *id.* at 286 (quoting *Baskin v. Hawley*, 807 F.2d 1120, 1134 (2d Cir. 1986)), the Second Circuit held that an ensuing colloquy that “fleshes out the motion . . . may provide the opposing party with the requisite notice.” *Id.* at 287. Nothing in *Galdieri-Ambrosini*, however, implied that allusions to deficiencies of proof during the course of trial alone would be sufficient to provide the requisite notice. To the contrary, *Galdieri-Ambrosini* held that a Rule 50(a) motion “must at least identify the specific element that the defendant contends is insufficiently supported,” *id.* at 286, and that if the requisite “specificity was lacking,” a Rule 50(b) motion could “neither be granted by the district court nor upheld on appeal unless that result is required to prevent manifest injustice.” *Id.* at 287 (internal citations and quotations omitted).

Defendant’s attempt to establish a manifest injustice is equally unavailing. In *Doctor’s Associates, Inc. v. Weible*, *supra* – the case on which Defendant relies – the Second Circuit disregarded the specificity requirement and overturned a jury verdict awarding the defendant compensatory and punitive damages on a counterclaim which alleged common law abuse of process under Connecticut law on the ground that plaintiffs had filed the federal lawsuit “solely to strong-arm him into settling or dropping” arbitration demands or a state lawsuit. 92 F.3d at 110. The defendant “did not (and could not) present evidence to sustain” a verdict on abuse of process. *Id.* at 114. However, the plaintiff’s Rule 50(a) motion was so inarticulate as to

constitute a “sandstorm of words” without an “oasis of an idea,” presenting no ground for relief “other than a jeremiad about the dire consequences of letting the counterclaim stand.” *Id.* at 113. Moreover, the district court cut short the plaintiffs’ argument, further “[m]uddying the waters” and “hindering [the Second Circuit’s] ability to adequately assess the grounds for the directed verdict motion.” *Id.* The district court not only denied the motion, but subsequently gave a jury charge that “[e]ssentially . . . advised the jury – erroneously – that it should find for Weible if it concluded that Plaintiffs filed the lawsuit with an improper motive.” *Id.* at 115. Under these circumstances, the Second Circuit held that, although the specificity requirement of Rule 50(a) was “obligatory,” it would be manifestly unjust to “woodenly apply it merely to attain an unwarranted triumph of form over substance.” *Id.* at 113 (internal quotations and citation omitted).

In this case, unlike in *Doctor’s Associates*, no manifest injustice is apparent from the record. There was ample evidence of both foreseeability and causation. Mr. Rupolo testified that, because the vertical support bracket obstructed his ability to place more than the toes of his left foot on the fourth rung of the ladder, he habitually placed the front of his left boot on the top of the bracket and the back of his boot on the fourth rung. According to Dr. Ojalvo, when Mr. Rupolo placed his foot on the bracket and the rung simultaneously, his foot was at a 28 degree angle (T. 369). Under dry conditions, the boot could slip, but would not do so “most of the time” (T. 373). However, when the ladder and the climber’s boot were wet, the coefficient of friction was lower and the boot “was more likely than not to slip” (T. 373). Since the ladder was likely to become wet during the process of washing the drum, slips were inevitable (T. 447, 448).

Mr. Rupolo testified that, on the day of the accident, he was climbing the ladder in this manner when his left foot slipped off the vertical support bracket, causing him to fall. Mr. Rupolo tacitly recognized that he was misusing the ladder in that he should have been stepping on the rungs, rather than on the bracket. However, he characterized this method as “the lesser of two evils” (T. 222, 243, 254, 261), asserting that the only other option was to place only the toes of his left boot on the fourth rung. While there is no direct evidence that Defendant knew that operators of the Mixer were climbing the ladder in the same manner as Mr. Rupolo, Defendant’s internal audit identified the placement of the vertical support bracket as a potential hazard, noting, “Ladder support bracket hits left toe, allowing 4.25 in. of foot contact on ladder rung.” *Id.* at 64-65. This statement at least implied that Defendant was aware that the fourth rung could not be used in the normal manner. Accordingly, there was sufficient evidence to permit a reasonable jury to find that Mr. Rupolo’s misuse of the ladder was entirely foreseeable and was the proximate cause of the accident.

Although this Court holds that Defendant is procedurally barred from raising the foreseeability and causation issues contained in Point III of Defendant’s Memo, the issues raised in Point II of Defendant Memo are not procedurally barred. In its Rule 50(a) motion, Defendant principally argued that Plaintiffs had not adduced sufficient evidence of a feasible alternative design. Defendant also argued that Dr. Ojalvo’s testimony established that the ANSI and OSHA standards on which he previously relied were inapplicable, stating that it was “just [his] opinion” that those standards applied to the ladder at issue (T. 551). Defendant essentially repeats these arguments in Point II, arguing that the proof adduced by Plaintiffs at trial was insufficient to make out a design defect for two reasons: (1) there was no evidence of a feasible alternative

design and (2) there was no competent evidence establishing that the presence of the bracket was a design defect.

The law-of-the-case doctrine also does not preclude this Court from considering these issues. This doctrine “counsels a court against revisiting its prior rulings in subsequent stages of the same case absent ‘cogent’ and ‘compelling’ reasons such as ‘an intervening change of controlling law, the availability of new evidence, or the need to correct a clear error or prevent manifest injustice.’” *Ali v. Mukasey*, 529 F.3d 478, 490 (2d Cir. 2008) (quoting *United States v. Tenzer*, 213 F.3d 34, 39 (2d Cir. 2000)). However, the doctrine is “discretionary and does not limit a court’s power to reconsider its own decisions prior to final judgment.” *Virgin Atl. Airways, Ltd. v. Nat’l Mediation Bd.*, 956 F.2d 1245, 1255 (2d Cir. 1992) (citing *Arizona v. California*, 460 U.S. 605, 618 (1983)) (“Law of the case directs a court’s discretion, it does not limit the tribunal’s power.”).

Moreover, application of the law-of-the-case doctrine in the context of Rule 50(b) motions would effectively alter the provisions of that Rule. As noted above, a motion pursuant to Rule 50(b) “is in reality a renewal of a motion” pursuant to Rule 50(a). *Lambert*, 10 F.3d at 53-54 (2d Cir. 1993). Rule 50(b) specifically provides that “[i]f the court does not grant a motion for judgment as a matter of law made under Rule 50(a), the court is considered to have submitted the action to the jury subject to the court’s later deciding the legal questions raised by the motion.” Application of law-of-the-case doctrine in the manner suggested by Plaintiffs would essentially re-write this provision by allowing renewal of the Rule 50(a) motion only when the court failed to rule on it or failed to articulate a basis for the ruling.

## ***II. The Substantive Arguments***

Since Defendant's arguments in Point II are not procedurally barred, this Court must address the questions of whether Plaintiffs adduced (1) sufficient evidence of a feasible alternative design and (2) competent evidence establishing that the presence of the bracket was a design defect. For the reason stated below, this Court answers both questions in the affirmative.

***A. Feasible Alternatives***

First, Plaintiffs adduced ample evidence of feasible alternative designs. According to Pluchinsky, an Oshkosh engineer, the Pre-1995 Version of the Oshkosh mixer did not have a vertical support bracket (T. 42) and, therefore, had no limitation on the toe clearance on the upper rungs (T. 44). After the Mixer was redesigned, Defendant's own product safety team thoroughly examined the Mixer and produced a product audit sheet which identified the placement of the vertical support bracket as a potential hazard, noting, "Ladder support bracket hits left toe, allowing 4.25 in. of foot contact on ladder rung." Peterson Dep. at 64-65. In a column of the product audit sheet entitled "Action," the engineering department indicated that it could eliminate the hazard by "extend[ing] support bracket to provide plenty of room for foot." *Id.* at 65.

Although the product safety team decided that the risk posed by the vertical support bracket was "acceptable" and that it was unnecessary to redesign the bracket at that time, *id.* at 65-66, the bracket was ultimately redesigned in 2002 in precisely the way the engineering department proposed in response to the earlier audit. According to Peterson, a product safety manager at Oshkosh, the engineering department changed the design of the vertical support bracket to provide "an inch or two inches more . . . room for the left foot to be on the left-hand side of the top rung." *Id.* at 56. According to Pluchinsky, the modification required "no more

than adding . . . a little bit of metal to . . . the back of the bracket” (T. 115), and cost as little as \$10 for each mixer (T. 118).

To be sure, Pluchinsky testified that, in 1995, it was not feasible to change the bracket to permit more than 4.25 inches of toe space on the outside of the fourth rung (T. 114). However, this testimony was undercut by evidence that the engineering department proposed “extend[ing] support bracket to provide plenty of room for foot” in response to the product safety teams’s audit. Pluchinsky’s testimony was also contradicted by Dr. Ojalvo’s testimony that Oshkosh could have modified the bracket design to add additional toe room, as was done in 2002 (T. 402). In addition, there was photographic evidence that a competitor, Terex, had managed to design a front-discharge cement truck with an unobstructed ladder. When shown a photograph of the Terex Advance, Pluchinsky agreed that there was no obstruction limiting the toe clearance on the rungs of the ladder leading to the catwalk of that vehicle (T. 49).

Although Defendant asserts that Dr. Ojalvo admitted that the Terex Advance and Pre-1995 Version were incapable of performing the function for which the Mixer was designed, the record does not support Defendant’s assertion. Indeed, when Defendant’s counsel asked Dr. Ojalvo if it was correct that Oshkosh designed the Mixer “to be more resilient in off road usage than the alternative design,” Dr. Ojalvo did not agree with that proposition, stating, “I don’t know the details of the rest of that superstructure” (T. 530). Later in his cross-examination, Defendant’s counsel posed a question that assumed that the Mixer was designed to perform a different function than the Pre-1995 Version and the Terex Advance, asking, “[Y]ou can’t take either one of those alternatives and still have the same off road capability that Oshkosh and its customer base desired in this truck, can you?” (T. 531). While Dr. Ojalvo did not take issue with

that assumption – responding, “You could if you made other modifications to the attachment of the superstructure to the truck” (T. 531) – Dr. Ojalvo’s failure to challenge the assumption did not constitute an admission. Moreover, even if it had, that admission would have been contradicted by Pluchinsky’s testimony that the Terex Advance had the “same function” as the Mixer and the Pre-1995 Version (T. 46).

### ***B. Design Defect***

Plaintiffs also adduced sufficient evidence that the ladder on the Mixer was defectively designed. Dr. Ojalvo, who was qualified as an expert in fixed ladder construction and safety (T. 327), characterized the ladder design as not merely “unreasonably hazardous” and “defective” (T. 378, 463), but “terrible” in that it “unnecessarily” made “the task of climbing harder” and created “a situation that could lead to a slip” (T. 380). Although Dr. Ojalvo’s assessment was based in part on ANSI 14.3 – a standard developed for fixed ladders (T. 382) – Dr. Ojalvo’s opinion also rested on knowledge about ladders that he had gained through, among other things, serving for over 10 years on an ANSI committee on ladder safety (T. 314).

Defendant argues that Dr. Ojalvo’s opinion must be disregarded for two reasons. First, Defendant argues that Dr. Ojalvo conceded on cross-examination that the ANSI and OSHA standards did not apply to the ladder at issue. Second, Defendant argues that, absent proof that ANSI and OSHA standards were violated, Dr. Ojalvo’s testimony rests solely on ergonomics and “human factors” – disciplines in which he had not been qualified as an expert.

Neither argument is persuasive. First, although Dr. Ojalvo conceded that ANSI may have “made an attempt at clarifying that [ANSI 14.3] did not apply to mobile equipment” (T. 516), he did not actually concede that the ANSI and OSHA standards were inapplicable. To the

contrary, Dr. Ojalvo, who viewed the ladder on the Mixer as “a fixed industrial ladder,” “applied to a concrete truck” (T. 317-18, 358), maintained that the ladder should have followed the standards for foot clearance and rung height set forth in ANSI 14.3 (T. 517).

In addition, regardless of whether the ANSI and OSHA standards were applicable, there was evidence that Defendant itself referred to the OSHA and ANSI standards in designing their vehicles. Although Pluchinsky himself was not involved in the development and testing of the ladder at issue (T. 93), and was not aware of whether the ANSI or OSHA standards were used in designing the ladder at issue (T. 181), he testified that it was the custom and practice of Oshkosh to rely on those standards as a reference (T. 93). That testimony was substantiated by the product audit sheet, which raised the question of whether the middle rung on the superstructure’s railing met “OSHA standards.”

As this Court noted in its Memorandum and Order adopting Judge Reyes’ recommendation that this Court deny Defendant’s motion for summary judgment, the applicability of the ANSI and OSHA standards is a factual question. *Rupolo*, 749 F. Supp. 2d at 43. In light of Dr. Ojalvo’s use of those standards, and Defendant’s own reference to “OSHA standards” in the product audit sheet, a jury could reasonably conclude that the standards should have been followed regardless of whether ANSI itself viewed them as applicable to mobile equipment. Those standards required, *inter alia*, that a ladder have the same clear width on each rung and have a minimum of seven inches of clear space forward from the center of the rung (T. 376-78). Since the ladder at issue did not meet those requirements, a jury could view the failure to comply with the ANSI and OSHA standards as evidence of a defective design. *See Del Cid*, 901 F. Supp. at 548 n.7; *Montalvo*, 1991 WL 52777, at \*3.

Even assuming, *arguendo*, that the ANSI and OSHA standards were entirely irrelevant, Dr. Ojalvo was competent to offer an opinion regarding the safety of the ladder at issue. As noted above, Dr. Ojalvo's assessment was not based solely on the ANSI and OSHA standards, but also on knowledge about ladders that Dr. Ojalvo had gained through, among other things, serving for over 10 years on an ANSI committee on ladder safety (T. 314). Although Dr. Ojalvo may not have qualified as an expert in human factors and ergonomics, the expertise in fixed ladder construction and safety qualified him to opine about the manner in which people climb ladders and how a ladder must be designed to meet a climber's needs and expectations. Accordingly, even if the ANSI and OSHA standards were inapplicable, Dr. Ojalvo's own expertise in ladder construction and safety qualified him to offer an opinion about whether the ladder at issue was defectively designed.

### ***III. Defendant's Rule 59 Motion***

Defendant's Rule 50(b) also requests, in the alternative, that this Court order a new trial. As noted on page 24, *supra*, Rule 50(b) specifically provides that a renewed motion for a judgment as a matter of law "may include an alternative or joint request for a new trial under Rule 59." Rule 59 provides that, after a jury trial, a court "may, on motion, grant a new trial on all or some of the issues – and to any party – . . . for any reason for which a new trial has heretofore been granted in an action at law in federal court."

Defendant's motion, however, does not suggest any specific reasons for granting a new trial. Rather, Defendant merely alludes to the arguments stated in Points II and III of Defendant's Memo, stating:

As discussed above, the record clearly mandates entry of judgment in Oshkosh's favor. However, should the Court decline to grant such a remedy, as an alternative, Oshkosh seeks a new trial on the issue of liability.

Defendant's Memo at 24. Since this Court has already determined that the record does not mandate entry of judgment for Defendant, this Court finds no basis for granting a new trial.

### ***CONCLUSION***

For the reasons stated above, Defendant's motion for judgment as a matter of law pursuant to Rule 50(b) of the Federal Rules of Civil Procedure is denied. Defendant motion for a new trial is also denied. In light of a letter dated September 30, 2013, in which Defendant represents that Plaintiffs is now claiming that Mr. Rupolo's "reflex sympathetic dystrophy has spread" and that Mr. Rupolo is now receiving Social Security Disability and Medicaid benefits, *see* Letter to Hon. Sandra L. Townes from Carl J. Schaerf, dated Sept. 30, 2013, at 3, this Court refers this matter to Magistrate Judge Reyes to determine whether it is appropriate to re-open discovery.

**SO ORDERED.**

/s/  
\_\_\_\_\_  
SANDRA L. TOWNES  
United States District Judge

Dated: September 30, 2013  
Brooklyn, New York